

VIII. *List of the Cetoniidæ collected by Messrs. H. E. ANDREWES and J. R. D. BELL in the Bombay Presidency of India, with descriptions of the new species.* By OLIVER E. JANSON, F.E.S.

[Read March 6th, 1901.]

ALTHOUGH Mr. Andrewes's collection of this family of his Coleoptera is not a large one, it includes several species that are interesting on account of the doubt that previously existed as to their habitat, and three that are new. I have given a complete list in preference to merely describing the new ones, as I think it is always desirable to have a record of authentic localities, and nothing of the kind has hitherto been published on the Cetoniidæ of this part of India. Of the twenty-seven species enumerated seven are, as far as is at present known, peculiar to the Bombay district, thirteen of the others are also found in Mysore, Travancore, and other parts of southern India and Ceylon, and four only have a northern range, occurring also in central India and Bengal, whilst the remaining three are of wide distribution and have a range beyond the limits of Continental India and Ceylon.

I have to thank Mr. Andrewes for the liberal manner in which he has allowed me to retain specimens, in several instances uniques, for my own collection, and regret that the publication of this paper has been so unavoidably delayed.

1. TRIGONOPHORUS DELESSERTI, Guér.

Kanara.

Taken by Mr. Bell, rarely, on trees in evergreen jungle.

2. HETERORRHINA OBESA, Jans.

Kanara; Belgaum.

3. HETERORRHINA OLIVACEA, Guér.

Kanara; Belgaum.

This rather common S. Indian species is usually very constant in its uniform olive-green colour, from which it derives its name; but amongst those obtained by Mr. Andrewes there is an example, which he has kindly allowed me to retain for my own collection, of a light green colour similar to that of *H. punctatissima*, but otherwise quite normal.

4. *HETERORRHINA SINUATOCOLLIS*, Schaum.

Belgaum.

A small series of this rather scarce species include several of the beautiful deep blue variety, which are rather larger than the normal form, and have the exposed portion of the meta-coxæ, the underside of the meso-sternal epimera, and the femora deep red, tinged with purple, and the tibiæ and tarsi black or piceous.

5. *HETERORRHINA ELEGANS*, Fab.

Kanara; Belgaum.

6. *DICEROS CUVERA*, Newm.

Kanara.

7. *CLINTERIA GUTTIFERA*, Burm.

Kanara.

8. *CLINTERIA HILARIS*, Burm.

Kanara.

9. *CLINTERIA TETRASPILA*, Hope.

Kanara.

A single specimen only of this scarce species, taken by Mr. Bell.

10. *CLINTERIA BELLI*, n. sp.



Obscure viridi-ænea, sub-nitida; thorace remote punctato, lateribus albo-marginato; elytris obsolete punctato-striatis, singulo vitta magna, apice trilobata, alba; subtus pedibusque nigro-ænea nitida.

Long. 17-18 mm.

Clinteria belli

Obscure brassy-green, head and thorax somewhat shining, with or without a coppery tinge, underside and legs greenish- or brassy-black, shining. Head

convex in the centre, rather strongly punctured, clypeus with the margins raised, the apex impressed and emarginate. Thorax remotely punctured on the disk, more coarsely and closely punctured towards the sides and apex, basal angles strongly rounded, a broad white marginal band on each side. Elytra with somewhat indistinct fine punctures arranged in rows, the apex more coarsely and irregularly punctured, the apical sutural angles slightly rounded, depressed in the centre and with a broad longitudinal white streak extending from the base to about one-fourth from the apex where it becomes dilated and trilobed. Pygidium coarsely and transversely strigose, with a large and somewhat triangular white spot on each side. Underside and legs very coarsely punctured, mesosternal process large, obliquely divergent and obtuse at the apex, sides of the metasternum and abdomen with white spots, anterior tibiæ with two strong but obtuse lateral teeth.

Kanara.

The remarkable markings on the elytra render this a most conspicuous species and at once distinguish it from all others; it is evidently allied to *C. tetraspila*, Hope, but is rather larger and of a broader, more depressed and quadrate form, and has the thorax more rounded at the sides. The two specimens submitted to me by Mr. Andrewes, one of which he has allowed me to retain, are apparently females, and were taken by Mr. Bell.

11. AGESTRATA ORICHALCEA, Lin., var. *withilli*, Hope.

Kanara.

12. MACRONOTA (IXORIDA) ALBOGUTTATA, Parry.

Kanara.

Two specimens taken by Mr. Bell, in flowers, in June.

This species, described by Parry, from an Indian specimen, is stated by him to have been also received from the Philippine Islands, and this locality is given as its habitat in the Munich Catalogue, there is but little doubt however that the closely allied *vidua*, Wall., *propinqua*, Mohn., or *mindanoensis*, Mohn., all Philippine species, has been mistaken for it, and thus led to this error as to locality.

13. *TÆNIODERA SANNIO*, Jans.

Belgaum; Kanara.

I described this pretty species from five or six specimens received from Travancore all of which prove to be of the male sex; a good series collected by Mr. Bell include both the sexes; the female is very similar to the male but has the yellow markings on the thorax rather broader and more strongly marked with black punctures, the spot on the pygidium is broader and rounder, the abdominal yellow spots or stripes are much smaller, the legs are rather stouter, with stronger lateral teeth on the anterior tibiæ; the abdomen is more convex, and the penultimate segment has a fringe of golden hairs.

14. *GLYCYPHANA ALBOPUNCTATA*, Fab.

Kanara; Belgaum. On flowers, June and July.

15. *GLYCYPHANA VERSICOLOR*, Fab.

Dharwar, on roses; Poona; Belgaum. June and July.

16. *GLYCYPHANA ANDREWESI*, n. sp.

Robusta, obscure viridis vel olivacea, supra opaca, subtus nitida; thorace parce punctato, lateribus anguste albo-marginato; scutello, elytris pygidioque albo-notatis.

Long. 14-15 mm.

Var. thorace utrinque postice, elytris vitta lata obscure sanguineis.

Head coarsely and closely punctured at the base, the punctures finer and sparser towards the apex, clypeus broad, impressed on each side and deeply notched at the apex. Thorax more than one-third broader at the base than long, broadly emarginate before the scutellum, finely and remotely punctured on the disk behind, more coarsely punctured at the sides and in front, narrowly margined with white at the sides, and in some specimens with a large red basal spot on each side. Scutellum broad and triangular, impunctate, with a small white spot at the apex. Elytra with some rows of rather irregular semi-circular punctures, the discal costæ but slightly raised behind and becoming obsolete towards the base, five to seven small white spots on each disposed as in the allied species, in some specimens with a broad longitudinal red stripe in the centre. Pygidium convex, coarsely and transversely strigose, the striæ waved and

interrupted in places but not very close together ; four white spots in a transverse row near the base. Underside coarsely strigose, with sparse hairs and white spots at the sides ; mesosternal process broad, a little dilated and rounded at the apex ; abdomen with a double row of transverse white spots on each side. Legs short and stout, the femora fringed with yellowish hairs, anterior tibiæ with two lateral teeth, tarsi black.

Kanara ; Belgaum.

Allied to *G. prasina*, Hope, but rather larger and more robust with the scutellum broader and more obtuse, the clypeus less narrowed towards the apex, the whole punctuation of the head distinct and well separated (not confluent and forming striæ as in that species), the punctuation of the thorax is also more sparse and not confluent at the sides, the pygidium is more coarsely and much less closely strigose and the mesosternal process is flatter, and broader at the apex, the upper surface is also devoid of the fine setæ which are always more or less present in *prasina*, and the colour is darker.

Mr. Andrewes took two specimens at Nagargali (Belgaum district) in April and May 1887, and received others from Mr. Bell who states both the type form and variety to be common on flowers in Kanara, in June.

17. *EUMIMIMETICA* *IRRORATA*, Wall.

Cetonia (?) *irrorata*, Wall., Trans. Ent. Soc., 3, iv, p. 588 (1868).

Pseudanthracophora striatipennis, Kz., D. E. Z., 1898, p. 407.

Belgaum.

Two specimens, taken by Mr. Andrewes during the rains in 1886, I find to agree perfectly with this species of which I possess the original type specimen from the collection of the late Major Perry ; this specimen is labelled " Philippine Islands " and was described by Wallace as coming from that locality, but I have no doubt this is an error now that I have identified it as an Indian species.

It comes in Burmeister's section II. of the genus *Anoplochilus* and is closely allied to *terrosa*, Gory, for which Kraatz has (D. E. Z., 1881, p. 264) proposed a separate genus under the name of *Eumimimetica* ; it also agrees quite well with the characters given of his more recently created genus *Pseudanthracophora*, which therefore sinks

as a synonym and it is perhaps fortunate to be relieved of so unwieldy a name.

18. ANATONA STILLATA, Newm.

Kanara; Belgaum.

Very common in September and October on grass-stems.

19. CHILOLOBA ACUTA, Wiedm.

Kanara; Belgaum.

Very common in September and October, clinging to grass.

20. PROTAETIA REGALIS, Burm.

Kanara, Mr. Bell.

21. PROTÆTIA ALBOGUTTATA, Vigors.

Poona; Kanara; Belgaum.

Very common on flowers and flying about in the gardens and fields, and very often taken in the house; in 1887 Mr. Andrewes noticed very few specimens until the commencement of the rains (about June 10th) when it became at once exceedingly common.

The series in Mr. Andrewes' collection exhibit remarkable variation in size, colour, and in the number and extent of the white spots.

22. PROTÆTIA MACULATA, Fab.

Kanara.

23. PROTÆTIA PEREGRINA, Hbst.

Kanara; Belgaum.

24. ANTHRACOPHORA CRUCIFERA, Oliv.

Kanara; Belgaum.

Taken in June and July, also in September, at the exuding juices of trees, with *Heterorrhina olivacea*.

25. CENOCHILUS TRABECULA, Schaum.

Belgaum.

A single male specimen taken by Mr. Andrewes during

the rains in 1886 and which he has kindly given to me, I refer, with but slight hesitation, to this species; it agrees fairly well with Westwood's description and figure (*Thesaurus Entom.*, p. 44, pl. 13, fig. 10) except that the colour is piceous black, the thorax rather broader behind and more finely punctured, the abdomen very deeply and broadly impressed, the anterior tibiæ show no indication whatever of a third tooth and the posterior tibiæ are strongly dilated on the inner side from the middle to the apex, the dilatation commencing abruptly and forming an acute angle, and very similar to that shown in Westwood's figure (l. c. fig. 3) of *C. brunneus*. As the chief of these points of difference are evident male characters I infer that Schaum's original type specimen, from which Westwood's description and figure are taken, is a female example, and that the male sex was unknown to either of them.

26. *CÆNOCHILUS PYGIDIALIS*, n. sp.

Elongatus, nigro-piceus, sub-nitidus; subtus rufo-piceus; capite rugoso-punctato; thorace sub-rotundato, postice truncato, crebre punctato; elytris tri-sulcatis, cribrissime aciculatis, lateribus punctatis; pygidio transverse carinato; tibiis anticis dilatatis, obtuse dentatis.

Long. 16 millim.

Elongate, piceous black, slightly shining, the pygidium, underside and legs reddish piceous and more shining. Head closely covered with coarse confluent punctures and with a rather strong transverse basal ridge, clypeus widened in front, with the angles rounded and the apical margin slightly emarginate and reddish. Thorax strongly rounded at the sides, widest just behind the middle, where it is a little broader than long, basal margin straight, with the lateral angles strongly rounded, very closely punctured and with an impressed median line extending from near the base to a little beyond the middle, a deep transverse fovea on each side at the base. Scutellum convex, closely punctured and very acute at the apex. Elytra very densely and irregularly aciculate and punctured, the base and sides more distinctly punctured, strongly trisulcate on the disk and with a deeply impressed line above the lateral sinus, rounded at the apex with the sutural angles obtuse. Pygidium divided by a very strong transverse ridge in the middle, the upper portion very closely and finely aciculate and with a small fovea on each side at the base, the lower portion irregularly but not very

closely punctured, a little impressed at the sides and with a slight longitudinal central ridge. Underside strigose; prosternal spine large and fringed with yellow-brown hairs; posterior margin of the prosternum raised into an acute ridge in the centre; metasternum densely strigose and with decumbent yellowish pubescence. Legs punctured, femora fringed with short yellowish hairs, anterior tibiæ dilated towards the apex, a broad subapical tooth and the apex obtuse; posterior tibiæ with deep, coarsely punctured striae.

Belgaum.

This species is evidently allied to *C. javanicus*, Westw., but has the elytra trisulcate and densely aciculate, whereas in that species they are described as having six striae with the interstices rugosely punctured or subgranulated and setose; from *C. apicalis*, Westw., it differs in having the elytra rounded instead of acuminate at the apex; the form of the pygidium also differs from both those species.

A single specimen, apparently a female, taken by Mr. Bell in 1891, has been kindly given to me.

27. VALGUS PYGMÆUS, Gory.

Belgaum.

A good series of specimens taken by Mr. Andrewes agree with Gory's very brief description and also with the points mentioned by Schaum, except that I should describe the colour as red-brown or castaneous, rather than dull sanguineous-red. It belongs to Burmeister's section *Oreoderus*.